## (19) World Intellectual Property **Organization**

International Bureau





(43) International Publication Date 22 September 2005 (22.09.2005)

PCT

## (10) International Publication Number WO 2005/088923 A1

H04L 27/26 (51) International Patent Classification<sup>7</sup>:

(21) International Application Number:

PCT/GB2005/000924

(22) International Filing Date: 10 March 2005 (10.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

04251361.4 10 March 2004 (10.03.2004)

- (71) Applicant (for all designated States except US): MAT-SUSHITA ELECTRIC INDUSTRIAL CO., LTD [JP/JP]; 1006 Oaza Kadoma, Kadoma-shi, Osaka 571-8501 (JP).
- (72) Inventors; and
- Inventors/Applicants (for US only): BELL, Stewart, John, Hamish [GB/GB]; 3 Nursey Close, Lower Shiplake, Henley On Thames, Oxfordshire RG9 3BZ (GB). WONG, Danny, Yuk, Kun [CN/CN]; 23B, Block 2, Greenway Terrace, 5 Link Road, Happy Valley, Hong Kong (CN).
- (74) Agents: DAWSON, Elizabeth, A. et al.; A.A. Thornton & Co, 235 High Holborn, London WC1V 7LE (GB).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN. CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FAST FOURIER TRANSFORMATION (FFT) WITH ADAPTION OF THE SAMPLING RATE IN DIGITAL RADIO MONDIALE (DRM) RECEIVERS

(57) Abstract: A method of processing received radio signals in a receiver operating according to the DRM standard, in which the signals are converted to the receiver's baseband frequency, sampled and then subject to Fourier transformation to resolve QAM constellation points, wherein the sample rate of the signal on which the Fourier transform is performed is an integral multiple of the desired frequency spacing in the transform output and the Fourier transformation is a Fast Fourier Transformation.

